Contents of Volume 18

NUMBER 1 JANUARY–FEBRUARY 1994

Phospham—A Stable Phosphorus-rich Flame Retardant 1
E. D. WEIL AND N. G. PATEL

Christmas Trees—What Happens When They Ignite? 9
G. H. DAMANT AND S. NURBAKHSH

The Behaviour of Commercially Important Diisocyanates in Fire Conditions. Part 2: Polymeric Diphenyl Methane-4,4'-diisocyanate (PMDI) 17
G. MARLAIR, F. H. PRAGER AND H. SAND

Application of a Transport and Decay Model for Hydrogen Chloride to Hydrogen Chloride Generation in the Presence of Various Fluids and Surfaces, but without Poly(vinyl Chloride) 31
F. M. GALLOWAY AND M. M. HIRSCHLER

Fibre Mortar Composites in Fire Conditions 45
L. SARVARANTA AND E. MIKKOLA

Fire and Rice Husk Particleboard 51
S. K. BHATNAGAR

Short Communication: Some Comments Concerning the Measurement of Smoke 57
R. H. WHITELEY

NUMBER 2 MARCH–APRIL 1994

Comparison of Large- and Small-scale Heat Release Tests with Electrical Cables 61
M. M. HIRSCHLER

Fire Behaviour of Sisal Short Fibers Reinforced Gypsum 77
F. HERNANDEZ-OLIVARES, I. OTEIZA AND L. DE VILLANUEVA

Quantitative Structure–Property Relationships for Auto-ignition Temperatures of Organic Compounds 81
T. SUZUKI

An Approximate Integral Model for the Burning Rate of a Thermoplastic-like Material 89
J. QUINTIERE AND N. IQBAL

Determining Degrees of Combustibility of Building Materials—National Building Code of Canada 99
L. R. RICHARDSON

Toxicity of the Combustion and Decomposition Products of Polyurethanes 107
F. H. PRAGER, G. KIMMERLE, T. MAERTINS, M. MANN AND J. PAULUHN

Effects of Metallic Coatings on the Combustion Toxicity of Engineering Plastics 121
J. B. LARSEN, G. L. NELSON, B. K. WILLIAMS, E. G. SPENCER AND L. M. SPENCER

NUMBER 3 MAY–JUNE 1994

Fire-gas Hazards in Rail Traffic 131
F. H. PRAGER AND H.-P. CABOS

The Importance of Char-forming Reactions in Thermoplastic Polymers 151
P. CARTY AND S. WHITE

Fire-hazard Assessment of Extended-chain Polyethylene and Aramid Composites by Cone Calorimetry 167
J. R. BROWN, P. D. FAWELL AND Z. MATHYS

Developing Rational, Performance-based Fire Safety Requirements in Model Building Codes 173
R. W. BUKOWSKI AND V. BABRAUSKAS

Fire Conditions for Smoke Toxicity Measurement 193
R. G. GANN, V. BABRAUSKAS, R. D. PEACOCK AND J. R. HALL, JR

NUMBER 4 JULY–AUGUST 1994

Evaluation of Residual Fire Endurance of Concrete Slabs After Fire Exposure 201
K.-H. HSIUNG AND W. P. CHANG

Correlation between Cone Calorimeter Data and Time to Flashover in the Room Fire Test 205
B. A.-L. ÖSTMAN AND L. D. TSANTARIDIS

Time–Temperature Profile across a Lumber Section Exposed to Pyrolytic Temperatures 211
D. SHRESTHA, S. CRAMER AND R. WHITE

Experimental Studies on the Sensitivity of Fire Detectors 221
W. K. CHOW AND W. C. W. WONG

The Flammability of Polyacrylonitrile and its Copolymers. III. Effect of Flame Retardants 231
M. E. HALL, J. ZHANG AND A. R. HORROCKS

Evaluating Ignition Data Using the Flux Time Product 243
T. J. SHIELDS, G. W. SILCOCK AND J. J. MURRAY

Flammability of GRP for Use in Ship Superstructures 255
G. T. EGGLESTONE AND D. M. TURLEY

Short Communication: Drying Agents' Effects on CO_2 Readings 261
V. BABRAUSKAS AND P. THURESON

Short Communication: Temperature Profiles in Wood Members Exposed to Fire 263
M. L. JANSSENS AND R. H. WHITE

News 267

NUMBER 5 SEPTEMBER–OCTOBER 1994

The Application of Magnesium Hydroxide as a Fire Retardant and Smoke-suppressing Additive for Polymers 269
P. R. HORNSBY

Bench-scale Evaluations and Mechanistic Studies of Intumescent/Fire-protective Coatings for Polyvinyl Chloride Nitrile Rubber 277
S. G. PANDE, J. ADKINS, F. W. WILLIAMS AND P. A. TATEM

Describing Product Fire Performance—Manufacturers' versus Modelers' Needs 289
V. BABRAUSKAS

A Model for Predicting Heat Transfer through Gypsum-Board/Wood-Stud Walls Exposed to Fire 297
J. R. MEHAFFEY, P. CUERRIER AND G. CARISSE

The Flammability of Polyacrylonitrile and its Copolymers. IV. The Flame Retardant Mechanism of Ammonium Polyphosphate 307
J. ZHANG, A. R. HORROCKS AND M. E. HALL

Fire Performance Studies on Glass-reinforced Plastic Laminates 313
M. J. SCUDAMORE

On the Evaluation of a 'Time Constant' for Studying the Smoke-filling Processes in Atrium Spaces 327
W. K. CHOW

Note: Empirical Relationship Between Lower Flammability Limits and Standard Enthalpies of Combustion of Organic Compounds 333
T. SUZUKI

News 337

NUMBER 6 NOVEMBER–DECEMBER 1994

Factors Affecting Reliability of Light-framing Wood Members Exposed to Fire—A Critical Review 339
P. W. C. LAU AND J. D. BARRETT

Welding Methods with Reduced Fire Hazard for Single-ply Polymer-modified Bituminous Roofing Materials 351
K. OBA, U. DUHRIN AND F. BJÖRK

Simulation of Sprinkler–Hot Layer Interaction Using a Field Model 359
W. K. CHOW AND Y. L. CHEUNG

Note: Effect of Flame Retardant Treatment on Energy of Pyrolysis/Combustion of Wood Cellulose 381

B. GARBA, A. N. EBOATU AND M. A. ATTA-ELMANNAN

Note: Smoke Measurement and the Cone Calorimeter 385

M. FOLEY AND D. DRYSDALE

Communication: Autoignition Temperature of Carbon-filled Fluoroelastomers at Elevated Oxygen Pressure 389

F-Y. HSHIEH, C. J. BRYAN AND M. D. PEDLEY

Short Communication: Correlation between Upper Flammability Limits and Thermochemical Properties of Organic Compounds 393

T. SUZUKI AND K. KOIDE

Author Index 399